



General Assembly

February Session, 2006

Raised Bill No. 408

LCO No. 2088

02088_____HED

Referred to Committee on Higher Education and Employment
Advancement

Introduced by:
(HED)

***AN ACT CONCERNING THE ADVANCEMENT OF
NANOTECHNOLOGY DEVELOPMENT IN CONNECTICUT.***

Be it enacted by the Senate and House of Representatives in General
Assembly convened:

1 Section 1. Section 4-124hh of the 2006 supplement to the general
2 statutes is repealed and the following is substituted in lieu thereof
3 (*Effective July 1, 2006*):

4 (a) The Office of Workforce Competitiveness shall, within available
5 appropriations, establish a grant program to provide a flexible source
6 of funding the creation and generation of talent in institutions of
7 higher education and, with appropriate connections to vocational-
8 technical schools and other secondary schools, for student outreach
9 and development. Grants pursuant to this subsection shall be awarded
10 to institutions of higher education and may be used to:

11 (1) Upgrade instructional laboratories to meet specific industry-
12 standard laboratory and instrumentation skill requirements;

13 (2) Develop new curriculum and certificate and degree programs at
14 the level of associate, bachelor, master's and doctorate, tied to industry

15 identified needs;

16 (3) Develop seamlessly articulated career development programs in
17 workforce shortage areas forecasted pursuant to subdivision (9) of
18 subsection (b) of section 4-124w in collaboration with vocational-
19 technical schools and other secondary schools and institutions of
20 higher education; [and]

21 (4) Support undergraduate and graduate student research projects
22 and experimental learning activities; and

23 (5) Establish a nanotechnology post-secondary education program
24 and clearinghouse for curriculum development, scholarships and
25 student outreach.

26 (b) The Office of Workforce Competitiveness shall, within available
27 appropriations, establish a grant program to provide funding for the
28 advancement of research capabilities and research opportunities.
29 Grants pursuant to this subsection shall be awarded to institutions of
30 higher education and technology focused organizations and may be
31 used to:

32 (1) Recruit eminent faculty in basic and applied research;

33 (2) Leverage federal funding for research centers; [and]

34 (3) Provide pilot funding for faculty to develop initial research data
35 for the development of larger grant funding proposals and to nonstate
36 granting entities, such as federal agencies; and

37 (4) Establish a Connecticut Nanotechnology Collaboration Initiative
38 to foster industry-university relationships by providing:

39 (A) Discovery grants, not to exceed fifty thousand dollars, to
40 support post-doctorate or graduate students working with industry on
41 nanotechnology projects under the supervision of faculty members.
42 Each discovery grant shall be matched with a direct or in-kind

43 industry grant in the same amount;

44 (B) Collaborative grants, not to exceed one hundred fifty thousand
45 dollars, to support university research teams working with industry on
46 collaborative research projects focused on specific application
47 development. Each collaborative grant shall be matched with an
48 industry grant in the same amount;

49 (C) Prototype grants, not to exceed two hundred fifty thousand
50 dollars, to enable universities and companies to demonstrate whether
51 a prototype is manufacturable and functional and the cost effectiveness
52 of nanotechnology-related applications. Each prototype grant shall be
53 matched with an industry grant in an amount equal to two dollars for
54 every one dollar of such prototype grant.

55 (c) The Office of Workforce Competitiveness shall, within available
56 appropriations, establish a grant program to provide funding for the
57 promotion of collaborative research applications between industry and
58 institutions of higher education. Grants pursuant to this subsection
59 shall be awarded to institutions of higher education, technology-
60 focused organizations and business entities may be used:

61 (1) To improve technology infrastructure by advancing the
62 development of shared use between institutions of higher education
63 and business entities of laboratories and equipment, including, but not
64 limited to, technology purchase, lease and installation, operating and
65 necessary support personnel and maintenance; [and]

66 (2) As matching grants for joint projects between an industry, a
67 technology-focused organization or a university. The office shall
68 structure the matching grants to provide two rounds of funding
69 annually and shall do outreach to companies. The matching grant part
70 of the program shall include, but not be limited to, (A) one-to-one
71 matching grants not to exceed one hundred thousand dollars, with in-
72 kind match allowed for small and mid-sized companies, (B)
73 involvement of a competitive process with outside reviewers using as

74 key criteria (i) the demonstration of commercial relevance, and (ii) a
75 clear path to the marketplace for any innovations developed in the
76 course of the research, and (C) an aggressive marketing campaign
77 through business organizations to raise industry awareness of
78 resources from universities or technology-focused organizations; and

79 (3) To develop a Connecticut Center for Nanoscale Sciences and
80 Development to provide a shared-use laboratory in one or more sites
81 in the state to advance university research, industry application
82 development and education involving the synthesis, characterization
83 and fabrication of nanoscale materials, intermediates and devices and
84 related program activities. The Office of Workforce Competitiveness
85 shall conduct a feasibility study and business planning model leading
86 to the establishment of such center, including strategies for securing
87 investments from the federal government and private entities. On or
88 before January 1, 2007, said office shall submit the results of such
89 study, in accordance with the provisions of section 11-4a, to the joint
90 standing committees of the General Assembly having cognizance of
91 matters relating to commerce and higher education and employment
92 advancement.

93 (d) The Office of Workforce Competitiveness shall, within available
94 appropriations, establish a grant program to provide funding for the
95 promotion of commercialization of research done by institutions of
96 higher education. Grants pursuant to this subsection shall be awarded
97 to institutions of higher education and business entities and may be
98 used; [to:]

99 (1) [Provide] To provide funding to verify the technical and
100 commercial feasibility of early stage discoveries by institutions of
101 higher education that are disclosed or patented to accelerate and
102 increase the likelihood that the technology will be successfully
103 commercialized; [and]

104 (2) [Provide] To provide matching support for smaller institutions
105 of higher education to allow for contracts with independent

106 technology transfer organizations to provide specific service to support
107 specific needs; and

108 (3) Through the Connecticut Small Business Innovation Research
109 Office, supported by the Office of Workforce Competitiveness, to
110 provide specialized technical assistance to advance nanotechnology
111 awards to Connecticut companies and the small business innovation
112 research program, including nanotechnology-related workshops and
113 seminars, grant preparation assistance, marketing assistance, services
114 related to matching grants and other technical assistance to assist
115 companies with nanotechnology-related applications for the small
116 business innovation research program.

117 Sec. 2. (*Effective July 1, 2006*) The following amounts are
118 appropriated, from the General Fund, for the fiscal year ending June
119 30, 2007:

120 (1) One million dollars to the Department of Higher Education for
121 the purposes set forth in subdivision (5) of subsection (a) of section 4-
122 124hh of the 2006 supplement to the general statutes, as amended by
123 this act;

124 (2) Five million dollars to the Office of Workforce Competitiveness
125 for the purposes set forth in subdivision (4) of subsection (b) of section
126 4-124hh of the 2006 supplement to the general statutes, as amended by
127 this act;

128 (3) Two hundred fifty thousand dollars to the Office of Workforce
129 Competitiveness for the feasibility study required under subdivision
130 (3) of subsection (c) of section 4-124hh of the 2006 supplement to the
131 general statutes, as amended by this act; and

132 (4) Two hundred fifty thousand dollars to the Office of Workforce
133 Competitiveness for the purposes set forth in subdivision (3) of
134 subsection (d) of section 4-124hh of the 2006 supplement to the general
135 statutes, as amended by this act.

This act shall take effect as follows and shall amend the following sections:		
Section 1	<i>July 1, 2006</i>	4-124hh
Sec. 2	<i>July 1, 2006</i>	New section

Statement of Purpose:

To advance Connecticut's position in nanotechnology development.

[Proposed deletions are enclosed in brackets. Proposed additions are indicated by underline, except that when the entire text of a bill or resolution or a section of a bill or resolution is new, it is not underlined.]